



AF DW

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Turung
For : AIRCRAFT EMERGENCY NAVIGATIONAL
SYSTEM
Serial No. : 10/799,980
Filed : March 12, 2004
Examiner : Brian J. Broadhead
Group Art Unit : 3661
Date of Last Action : January 17, 2006
Our Docket : BETT 2 13280

REVISED APPEAL BRIEF

Mail Stop Appeal Brief - Patent
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

This is an appeal from the decision of the examiner dated November 2, 2006 finally rejecting the pending claims in the above-identified patent application

Appellant timely filed an Appeal Brief on May 4, 2007. Appellant noted that the Appeal Brief included several grammatical errors. Appellant has filed this revised Appeal Brief to address

these errors that unfortunately were not caught prior to the filing of the Appeal Brief. Appellant requests entry of this Revised Appeal Brief.

I. REAL PARTY IN INTEREST

Brian E. Turung is the real party and is the named inventor.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

The above-identified patent application presently contains claims 23-64. Claims 1-22 were canceled during the prosecution of this application. Claim 23 and 44 are the only pending independent claims. The examiner in the Final Office Action indicated that none of the pending claims were in allowable form. The examiner did indicate that claims 28-30, 33, 37, 38, 41-43, 49-51, 54, 58, 49, and 62-64 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The examiner in the Final Office Action rejected claims 23-26, 34-36, 39 and 40 under 35 U.S.C. §102(b) as being anticipated by Schanzer (US 3,945,593). The examiner also rejected claims 44-48, 52, 53, 55, 56, 60 and 61 under 35 U.S.C. §102(b) as being anticipated by Bice (4,924,401). The examiner further rejected claims 27, 31 and 32 under 35 U.S.C. §103(a) as being unpatentable over Schanzer (US 3,945,593) in view of Bice (4,924,401). The examiner still further rejected claim 57 under 35 U.S.C. §103(a) as being unpatentable over Bice (4,924,401).

Claims 23-27, 31, 32, 34-36, 39, 40, 44-48, 52, 53, 55-57, 60 and 61 are the subject of this Appeal. Appellant has included the appealed claims and the objected to claims in the Appendix of Claims.

IV. STATUS OF AMENDMENTS

Appellant has not filed any amendments to the claims after receiving the Final Office Action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The claimed invention is directed to a novel emergency navigational system for an aircraft. Independent claims 23 and 44 are the only independent claims on appeal. Dependent claims 24 to 43 directly or ultimately depend from independent claim 23. Dependent claims 45 to 64 directly or ultimately depend from independent claim 44. None of the claims on appeal include mean-plus-function language.

A. Independent Claim 23

Independent claim 23 is directed to an emergency navigational system that at least partially controls the navigation of an aircraft. (P. 2, lns. 7-23).

The emergency navigational system comprising a comparator device that compares actual flight parameter data at a particular time, at a particular location, or combinations thereof to predefined flight parameter data for the particular time, the particular location, or combinations thereof. (P. 19, lns. 15-19, 26-29).

The emergency navigational system also includes a navigational controller that takes control of at least one navigational control of the aircraft after the data compared by the comparator deviates beyond a predefined value. (P. 20, lns. 2-6, 9-24; P. 22, lns. 23-28).

B. Independent Claim 44

Independent claim 44 is directed to a method of at least partially controlling an aircraft that has deviated from at least one predefined flight parameter. (P. 2, lns. 7-23).

The method requires the use of at least one predefined flight parameter for at least a portion of a flight path of the aircraft into a database. (P. 23, lns. 7-11).

The method also requires the predefined flight parameter to correspond to a particular location, to a particular time, or combinations thereof. (P. 22, ln. 23 to P. 23, ln. 25).

The method also requires the monitoring of at least one flight parameter during the flight of the aircraft which corresponds to the at least one predefined flight parameter. (P. 23, lns. 11-25).

The method also requires the comparing of at least one predefined flight parameter to the corresponding monitored flight parameter. (P. 23, lns. 16-25).

The method also requires causing the emergency navigational system to activate a navigational controller after determining the monitored flight parameter exceeds a predefined deviation from the predefined flight parameter. (P. 4, ln. 15 to P. 6, ln. 29; P. 9, ln. 1 to P. 13, ln. 27, P. 20, lns. 2-24; P. 21, ln. 3-17).

The method also requires the navigational controller to at least partially control the navigation of the aircraft after being activated. (P. 4, ln. 15 to P. 6, ln. 29; P. 9, ln. 1 to P. 13, ln. 27, P. 20, lns. 2-24; P. 21, ln. 3-17).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 23-26, 34-36, 39 and 40 stand rejected under 35 U.S.C. §102(b) as being anticipated by Schanzer (US 3,945,593).

Claims 44-48, 52, 53, 55, 56, 60 and 61 stand rejected under 35 U.S.C. §102(b) as being anticipated by Bice (4,924,401).

Claims 27, 31 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schanzer (US 3,945,593) in view of Bice (4,924,401).

Claim 57 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Bice (4,924,401).

VII. ARGUMENT

A. THE FIRST ISSUE ON APPEAL

It is respectfully submitted that the examiner's final rejection of claims 23-26, 34-36, 39 and 40 under 35 U.S.C. §102(b) as being anticipated by Schanzer is in error.

Appellant submits that Schanzer does not disclose or teach the novel emergency navigational system that satisfies all the limitations of independent claim 23.

A claim is not anticipated 35 U.S.C. §102 unless each element and limitation of the claim was known or used by others before it was invented by the patentee. *Hoover Group v. Custom Metalcraft*, 36 USPQ2d 1101, 1103 (Fed. Cir. 1995). (*Emphasis added*). In other words, invalidity by anticipation requires that the four corners of a single, prior art document describe every element of the claimed invention, either expressly or inherently, such that a person of ordinary skill in the art could practice the invention without undue experimentation. *Atlas Powder Co. v. Ireco Inc.*, 51 USPQ2d 1943, 1947 (Fed. Cir. 1999); *In re Paulsen*, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

1. Independent Claim 23

The examiner asserted that Schanzer teaches an emergency navigational system as defined in claim 23. Appellant respectfully disagrees. Schanzer discloses a flight control apparatus for controlling the trajectory of an airplane. This flight control apparatus is always engaged during the flight of the aircraft so as to constantly adjust one or more operations of the aircraft. Schanzer does not include any teaching of any type of system taking control of any navigational system after some event occurs during the flight of the aircraft.

The emergency navigation system as defined in claim 23 monitors flight activity during a flight, but does not control the navigation of the aircraft until after some predefined flight parameter has been deviated from by some predefined amount. This concept is not disclosed taught or suggested by 23-26, 34-36, 39 and 40. Schanzer only discloses a single navigation system that controls the navigation of the aircraft when activated. The teachings associated with Schanzer regarding navigational control of aircraft are different from the emergency navigation system as defined in claim 23.

Claim 23 also requires that a comparator device is used to compare actual flight parameter data at a particular time and/or at a particular location to predefined flight parameter data for the particular time and/or the particular location. Schanzer does not disclose, teach or suggest the use of predefined flight parameter data that is correlated to a particular time and/or particular location so as to control the navigation of the aircraft.

Appellant requests that the rejection of claims 23-26, 34-36, 39 and 40 under 35 U.S.C. §102(b) as being anticipated by Schanzer be reversed and that such claims be indicated as allowable over the cited art of record.

2. Dependent Claim 36

Appellant submits that in addition to the allowability of claim 23, dependent claim 36 includes limitations not disclosed or taught in Schanzer.

Claim 36 includes the limitation of a secondary emergency navigational system that at least partially performs at least one function of the emergency navigational system when at least one function of the emergency navigational system fails. As mentioned above, Schanzer does not disclose, teach or suggest an emergency navigational system, much less a secondary emergency

navigational system.

Appellant requests that the rejection of claim 36 under 35 U.S.C. §102(b) as being anticipated by Schanzer be reversed for at least this additional reason and that such claim be indicated as allowable over the cited art of record.

B. THE SECOND ISSUE ON APPEAL

It is respectfully submitted that the examiner's final rejection of claims 44-48, 52, 53, 55, 56, 60 and 61 under 35 U.S.C. §102(b) as being anticipated by Bice is in error.

Appellant submits that Bice does not disclose or teach the novel method of at least partially controlling an aircraft that satisfies all the limitations of independent claim 44.

1. Independent Claim 44

The examiner asserted that Bice teaches an emergency navigational system as defined in claim 44. Appellant respectfully disagrees. Bice discloses a ground collision avoidance control. The controller constantly monitors the altitude of the aircraft and when the controller determines that the aircraft is losing altitude at an unacceptable rate, the controller takes over the control of the aircraft and institutes an automatic flyup to avoid collision with the ground.

Claim 44 is directed to a method that includes the step of using at one predefined flight parameter that corresponds to a particular location and/or to a particular time during the flight of the aircraft to cause an emergency navigational system to activate a navigational controller after determining the monitored flight parameter exceeds a predefined deviation from the predefined flight parameter.

Bice does not disclose, teach or suggest the use of predefined flight parameter data that is correlated to a particular time and/or particular location so as to control the navigation of the aircraft.

Bice only discloses that a predefined altitude and/or altitude loss is use to activate a controller to avoid collision with the ground.

Appellant requests that the rejection of claims 44-48, 52, 53, 55, 56, 60 and 61 under 35 U.S.C. §102(b) as being anticipated by Bice be reversed and that such claims be indicated as allowable over the cited art of record.

2. Dependent Claims

Appellant submits that in addition to the allowability of claim 44, several of the dependent claims include limitations not disclosed or taught in Bice.

Claim 47 includes the limitation that the navigational controller controls at least one navigational control to at least partially cause the aircraft to at least temporarily cease deviating beyond a predefined deviation. As mentioned above, Bice does not disclose, teach or suggest the use of predefined flight parameter data to control any predetermined functions.

Appellant requests that the rejection of claim 47 under 35 U.S.C. §102(b) as being anticipated by Bice be reversed for at least this additional reason and that such claim be indicated as allowable over the cited art of record.

Claim 48 includes the limitation that the navigational controller controls at least one navigational control to at least partially cause the aircraft to at least temporarily follow a new preprogrammed path. Bice has no disclosure or teaching regarding preprogrammed paths.

Appellant requests that the rejection of claim 48 under 35 U.S.C. §102(b) as being anticipated by Bice be reversed for at least this additional reason and that such claim be indicated as allowable over the cited art of record.

Claim 52 includes the limitation that a database that at least partially stores the predefined flight parameter data prior to flight of the aircraft. As mentioned above, Bice does not disclose, teach or suggest the use of predefined flight parameter data to control any predetermined functions.

Appellant requests that the rejection of claim 52 under 35 U.S.C. §102(b) as being anticipated by Bice be reversed for at least this additional reason and that such claim be indicated as allowable over the cited art of record.

Claim 53 includes the limitation that the database of claim 52 is at least partially removable from the aircraft. Bice does not disclose or teach such a database as mentioned above.

Appellant requests that the rejection of claim 53 under 35 U.S.C. §102(b) as being anticipated by Bice be reversed for at least this additional reason and that such claim be indicated as allowable over the cited art of record.

Claim 56 includes the limitation that at least a portion of the emergency navigational system is located in a cockpit of the aircraft and at least a portion of the emergency navigational system is located remotely of the cockpit, and that the portion of the emergency navigational system located in the remote location from the cockpit having sufficient components, sufficient predefined flight parameter data, or combinations thereof to control the aircraft. Bice does not disclose an emergency navigational system as defined in claim 44 as mentioned above, nor does Bice disclose or teach any type of backup system for an emergency navigational system.

Appellant requests that the rejection of claim 56 under 35 U.S.C. §102(b) as being anticipated by Bice be reversed for at least this additional reason and that such claim be indicated as allowable over the cited art of record.

C. THE THIRD ISSUE ON APPEAL

The examiner's final rejection of claims 27, 31 and 32 under 35 U.S.C. §103(a) as being unpatentable over Schanzer in view of Bice is in error. Schanzer in view of Bice does not disclose, teach or suggest the novel emergency navigational system defined in the pending claims on appeal. As such, claims 27, 31 and 32 cannot be obvious over Schanzer in view of Bice.

1. **Schanzer in view of Bice Does Not Disclose, Teach or Suggest the Claimed Invention**

Appellant submits that Schanzer in view of Bice does not disclose, teach, or suggest an emergency navigational system that satisfies all the limitations of claims 27, 31 and 32.

To reject claims in an application under 35 U.S.C. §103, there must be a showing of an unrebutted *prima facie* case of obviousness. *In re Deuel*, 34 USPQ2d 1210, 1214 (Fed. Cir. 1995). In the absence of a proper *prima facie* case of obviousness, an inventor who complies with the other statutory requirements is entitled to a patent. *Oetiker*, 24 USPQ2d at 1444.

A claimed invention is not obvious under 35 U.S.C. §103 unless two criteria are met. First, the prior art must suggest making the claimed invention, for example, by combining the teachings of two prior art references. Second, if such suggestion is present, the prior art must also provide a reasonable expectation that the combination will work. *In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991).

Section 103 specifically requires consideration of the claimed invention "as a whole." *Ruiz v. A.B. Chance Co.*, 69 USPQ2d 1686, 1690 (Fed. Cir. 2004). Inventions typically are new combinations of existing principles or features. *Envtl. Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 698 (Fed. Cir. 1983) (noting that "virtually all [inventions] are combinations of old elements."). As

such, most, if not all, inventions arise from a combination of old elements. *In re Rouffet*, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998). Consequently, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *Id.* The "as a whole" instruction in Title 35 prevents evaluation of the invention part by part. *Ruiz*, 69 USPQ at 1690. Without this important requirement, an obviousness assessment might break an invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. *Id.* This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result--often the very definition of invention. *Id.*

The first criteria -- a suggestion in the prior art -- cannot be derived from a hindsight reconstruction of the claimed invention that uses the claim as a roadmap. *In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992).

Section 103 precludes this hindsight discounting of the value of new combinations by requiring assessment of the invention as a whole. *Id.* A rejection under Section 103 also requires a showing that an artisan of ordinary skill in the art at the time of invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would select the various elements from the prior art and combine them in the claimed manner. *Id.* In other words, the examiner must show some suggestion or motivation, before the invention itself, to make the new combination. *Rouffet*, 47 USPQ2d at 1456; *Dance*, 48 USPQ2d at 1637; *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Without such teachings, the claims pending in the above-identified patent application cannot be shown to be invalid for obviousness. *Gambro Lundia AB v. Baxter*

Healthcare Corp., 42 USPQ2d 1378, 1383 (Fed. Cir. 1997) (absence of a suggestion to combine is dispositive of an obviousness determination).

A critical step in analyzing the patentability of claims pursuant to 35 U.S.C. §103(a) is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. *Dembiczak*, 50 USPQ2d at 1617. When the art in question is relatively simple, the opportunity to judge by hindsight is particularly tempting. Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher." *Id.*

The best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." *Id.* See also *C.R. Bard, Inc. v. M3 Sys., Inc.*, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998) (describing "teaching or suggestion or motivation [to combine]" as an "essential evidentiary component of an obviousness holding"); *Rouffet*, 47 USPQ2d at 1459 ("the Board must identify specifically . . . the reasons one of ordinary skill in the art would have been motivated to select the references and combine them"); *In re Fritch*, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (The examiner can satisfy burden of obviousness in light of combination "only by showing some objective teaching [leading to the combination]"); *In re Fine*, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) (evidence of teaching or suggestion "essential" to avoid hindsight); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 227 USPQ 657, 667 (Fed. Cir. 1985) (district court's conclusion of obviousness was in error when it "did not elucidate any factual teachings, suggestions or incentives from this

prior art that showed the propriety of combination").

The second criteria -- reasonable expectation of success -- cannot be based on hindsight knowledge of an inventor's success. *Life Technologies, Inc. v. Clontech Laboratories, Inc.*, 224 F.3d 1320, 1326 (Fed. Cir. 2000).

Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight. *Interconnect Planning Corp. v. Feil*, 227 USPQ 543, 547 (Fed. Cir. 1985) ("The invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time."); *Diversitec Corp. v. Century Steps, Inc.*, 850 F.2d 675 (Fed. Cir. 1988).

The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be solved. *Dembiczak*, 50 USPQ2d at 1617. In addition, the teaching, motivation or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. *WMS Gaming, Inc. v. International Game Tech.*, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999). The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. *In re Keller*, 208 USPQ 871, 881 (CCPA 1981).

Irrespective of whether express or implicit showings are relied upon to reject claims under Section 103, there must be provided particular findings related thereto. *Dembiczak*, 50 USPQ2d at 1617. Broad conclusory statements standing alone are not "evidence" of obviousness. *Id.*, *See also McElmurry v. Arkansas Power & Light Co.*, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993); *In re Sichert*,

196 USPQ 209, 217 (CCPA 1977).

As will be established below, the examiner has not properly established a *prima facie* case of obviousness against any of the pending claims. Indeed, the rejection of the claims in the Final Office Action appears to evidence the use of hindsight reconstruction to support a rejection of the claims on appeal.

**2. Patentably Distinct Dependent
Claims 27, 31 and 32**

The examiner asserted that Bice discloses a navigational system that causes an aircraft to enter a new predefined flight path. As explained above, Bice only discloses a navigational system that prevents an aircraft from going below a preselected aircraft floor. Bice has not disclosure or teaching regarding the aircraft entering into a predefined flight path. Indeed, the examiner acknowledged that Schanzer has no disclosure regarding aircraft entering into a predefined flight path. Appellant submits that at least for this reason, dependent claim 27 is not obvious in view of the cited art of record. As mentioned above, dependent claim 27 is also ultimately dependent on independent claim 23, which claim is also allowable over the cited art of record as set forth above. As such, for at least this additional reason, dependent claim 27 is allowable over the cited art of record.

Appellant requests that the rejection of claim 27 under 35 U.S.C. §103(a) as being unpatentable over Schanzer in view of Bice be reversed and that such claim be indicated as allowable over the cited art of record.

With regard to dependent claims 31 and 32, the examiner merely asserted that it would be obvious to a) include a database that at least partially stores said predefined flight parameter data

prior to flight of the aircraft and b) have a database that is at least partially removable from the aircraft. The examiner acknowledges that neither Schanzer or Bice disclose such limitations. Appellant can only assume that the examiner used hindsight to assert that these two claims are obvious over the cited art of record. As mentioned above, hindsight cannot be used to support a rejection of a claim under 35 U.S.C. §103(a). Appellant submits that at least for this reason, dependent claims 31 and 32 are not obvious in view of the cited art of record. As mentioned above, dependent claims 31 and 32 are also ultimately dependent on independent claim 23, which claim is also allowable over the cited art of record as set forth above. As such, for at least this additional reason, dependent claims 31 and 32 are allowable over the cited art of record.

Appellant requests that the rejection of claims 30 and 31 under 35 U.S.C. §103(a) as being unpatentable over Schanzer in view of Bice be reversed and that such claims be indicated as allowable over the cited art of record.

D. THE FOURTH ISSUE ON APPEAL

The examiner's final rejection of claim 57 under 35 U.S.C. §103(a) as being unpatentable over Bice is in error. Bice does not disclose, teach or suggest the novel emergency navigational system defined in the pending claims on appeal. As such, claim 57 cannot be obvious over Bice.

1. Bice Does Not Disclose, Teach or Suggest the Claimed Invention

Appellant submits that Bice does not disclose, teach, or suggest the novel method of at least partially controlling an aircraft that satisfies all the limitations of claim 57.

The examiner admitted that Bice does not disclose or teach a secondary emergency navigational system, but then asserted that redundant navigational systems would have been obvious.

The examiner did not cited any art of record that discloses or teaches redundant navigational systems in aircraft, much less a redundant secondary emergency navigational system as defined in claims 57. Appellant can only assume that the examiner used hindsight to assert that claim 57 is obvious over the cited art of record. As mentioned above, hindsight cannot be used to support a rejection of a claim under 35 U.S.C. §103(a). Appellant submits that at least for this reason, dependent claim 57 is obvious in view of the cited art of record. As mentioned above, dependent claim 57 is also ultimately dependent on independent claim 44, which claim is also allowable over the cited art of record as set forth above. As such, for at least this additional reason, dependent claim 57 is allowable over the cited art of record.

E. SUMMARY

In conclusion, the claims on appeal pertain to a novel emergency navigational system and novel method of at least partially controlling an aircraft. Appellant submits that for at least the reasons set forth above, none of the pending claims in the above-identified patent application are obvious in view of the cited art of record. Appellant respectfully requests that the rejection of the claims be withdrawn and that such claims be indicated as allowable.

VIII. CLAIMS APPENDIX

Claims 1-22 (Canceled).

23. (Previously Presented) An emergency navigational system that at least partially controls the navigation of an aircraft comprising a comparator device that compares actual flight parameter data at a particular time, at a particular location, or combinations thereof to predefined flight parameter data for said particular time, said particular location, or combinations thereof, and a navigational controller that takes control of at least one navigational control of said aircraft after said data compared by said comparator deviates beyond a predefined value.

24. (Previously Presented) The emergency navigational system as defined in claim 23, wherein said actual flight parameter data includes data selected from the group consisting of GPS position data, airspeed, altitude, date, time, aircraft flap position, aircraft orientation, and combinations thereof.

25. (Previously Presented) The emergency navigational system as defined in claim 23, wherein said predefined flight parameter data includes data selected from the group consisting of GPS position data, airspeed, altitude, date, time, aircraft flap position, aircraft orientation, and combinations thereof.

26. (Previously Presented) The emergency navigational system as defined in claim 23, wherein said navigational controller controls at least one navigational control to at least partially

cause said aircraft to at least temporarily cease deviating beyond said predefined value.

27. (Previously Presented) The emergency navigational system as defined in claim 23, wherein said navigational controller controls at least one navigational control to at least partially cause said aircraft to at least temporarily follow a new preprogrammed flight path.

28. (Previously Presented) The emergency navigational system as defined in claim 23, wherein said navigational controller releases control of said at least one navigational control after receipt of a release signal from a security controller.

29. (Previously Presented) The emergency navigational system as defined in claim 28, wherein said release signal at least partially originates from a location remote to said aircraft.

30. (Previously Presented) The emergency navigational system as defined in claim 28, wherein said release signal at least partially originates from said aircraft.

31. (Previously Presented) The emergency navigational system as defined in claim 23, including a database that at least partially stores said predefined flight parameter data prior to flight of said aircraft.

32. (Previously Presented) The emergency navigational system as defined in claim 31, wherein said database is at least partially removable from said aircraft.

33. (Previously Presented) The emergency navigational system as defined in claim 23, including an aircraft regulator that limits operation of at least one aircraft device on said aircraft while said navigational controller is controlling at least one of said navigational controls, said aircraft device including an aircraft door, an aircraft hatch, aircraft elevators, aircraft lights, aircraft electronic systems, aircraft environmental controls, and combinations thereof.

34. (Previously Presented) The emergency navigational system as defined in claim 23, wherein said navigational control includes control of aircraft rudder, aircraft flap, landing gear, aircraft speed, exterior lighting, aircraft engine operation, aircraft fuel control, and combinations thereof.

35. (Previously Presented) The emergency navigational system as defined in claim 23, wherein at least a portion of said emergency navigational system is located in a cockpit of said aircraft and at least a portion of said emergency navigational system is located remotely of said cockpit, said portion of said emergency navigational system located in said remote location from the cockpit having sufficient components, sufficient predefined flight parameter data, or combinations thereof control said aircraft.

36. (Previously Presented) The emergency navigational system as defined in claim 23, including a secondary emergency navigational system that at least partially performs at least one function of said emergency navigational system when at least one function of said emergency navigational system fails.

37. (Previously Presented) The emergency navigational system as defined in claim 36, wherein at least a portion of said secondary emergency navigational system is positioned in a location remote of said cockpit.

38. (Previously Presented) The emergency navigational system as defined in claim 23, including a security analyzer to verify signals to said emergency navigational system from a location remote to said aircraft.

39. (Previously Presented) The emergency navigational system as defined in claim 23, wherein said predefined value is constant for at least one flight parameter.

40. (Previously Presented) The emergency navigational system as defined in claim 23, wherein said predefined value is not constant for at least one flight parameter.

41. (Previously Presented) The emergency navigational system as defined in claim 23, wherein said navigational controller takes control of said at least one navigational control after said compared data has remained beyond said predefined value for a predetermined amount of time.

42. (Previously Presented) The emergency navigational system as defined in claim 23, including a transmitter that transmits real time navigational data of said aircraft to a location remote of said aircraft during the time said navigational controller controls at least one of said navigational controls.

43. (Previously Presented) The emergency navigational system as defined in claim 23, including a fuel controller to at least partially expel fuel from said aircraft after said navigational controller controls at least one of said navigational controls.

44. (Previously Presented) The method of at least partially controlling an aircraft that has deviated from at least one predefined flight parameter comprising:

- a. including at least one predefined flight parameter for at least a portion of a flight path of said aircraft into a database, said predefined flight parameter corresponding to a particular location, to a particular time, or combinations thereof;
- b. monitoring at least one flight parameter during the flight of said aircraft which corresponds to said at least one predefined flight parameter;
- c. comparing said at least one predefined flight parameter to said corresponding monitored flight parameter; and,
- d. causing an emergency navigational system to activate a navigational controller after determining said monitored flight parameter exceeds a predefined deviation from said predefined flight parameter, said navigational controller at least partially controlling the navigation of said aircraft after being activated.

45. (Previously Presented) The method as defined in claim 44, wherein said monitored flight parameter data includes data selected from the group consisting of GPS position data, airspeed, altitude, date, time, aircraft flap position, aircraft orientation, and combinations thereof.

46. (Previously Presented) The method as defined in claim 44, wherein said predefined flight parameter data includes data selected from the group consisting of GPS position data, airspeed, altitude, date, time, aircraft flap position, aircraft orientation, and combinations thereof.

47. (Previously Presented) The method as defined in claim 44, wherein said navigational controller controls at least one navigational control to at least partially cause said aircraft to at least temporarily cease deviating beyond said predefined deviation.

48. (Previously Presented) The method as defined in claim 44, wherein said navigational controller controls at least one navigational control to at least partially cause said aircraft to at least temporarily follow a new preprogrammed path.

49. (Previously Presented) The method as defined in claim 44, wherein said navigational controller releases control of said at least one navigational control after receipt of a release signal from a security controller.

50. (Previously Presented) The method as defined in claim 49, wherein said release signal at least partially originates from a location remote to said aircraft.

51. (Previously Presented) The method as defined in claim 49, wherein said release signal at least partially originates from said aircraft.

52. (Previously Presented) The method as defined in claim 44, including a database that at least partially stores said predefined flight parameter data prior to flight of said aircraft.

53. (Previously Presented) The method as defined in claim 52, wherein said database is at least partially removable from said aircraft.

54. (Previously Presented) The method as defined in claim 44, including an aircraft regulator that limits operation of at least one aircraft device on said aircraft while said navigational controller is controlling at least one of said navigational controls, said aircraft device including an aircraft door, an aircraft hatch, aircraft elevators, aircraft lights, aircraft electronic systems, aircraft environmental controls, and combinations thereof.

55. (Previously Presented) The method as defined in claim 44, wherein said navigational control includes control of aircraft rudder, aircraft flap, landing gear, aircraft speed, exterior lighting, aircraft engine operation, aircraft fuel control, and combinations thereof.

56. (Previously Presented) The method as defined in claim 44, wherein at least a portion of said emergency navigational system is located in a cockpit of said aircraft and at least a portion of said emergency navigational system is located remotely of said cockpit, said portion of said emergency navigational system located in said remote location from the cockpit having sufficient components, sufficient predefined flight parameter data, or combinations thereof to control said aircraft.

57. (Previously Presented) The method as defined in claim 44, including a secondary emergency navigational system that at least partially performs at least one function of said emergency navigational system when at least one function of said emergency navigational system fails.

58. (Previously Presented) The method as defined in claim 57, wherein at least a portion of said secondary emergency navigational system is positioned in a location remote of said cockpit.

59. (Previously Presented) The method as defined in claim 44, including a security analyzer to verify signals to said emergency navigational system from a location remote to said aircraft.

60. (Previously Presented) The method as defined in claim 44, wherein said predefined deviation is constant for at least one flight parameter.

61. (Previously Presented) The method as defined in claim 44, wherein said predefined deviation is not constant for at least one flight parameter.

62. (Previously Presented) The method as defined in claim 44, wherein said navigational controller takes control of said at least one navigational control after said compared data has remained beyond said predefined deviation for a predetermined amount of time.

63. (Previously Presented) The method as defined in claim 44, including a transmitter that transmits real time navigational data of said aircraft to a location remote of said aircraft during the time said navigational controller controls at least one of said navigational controls.

64. (Previously Presented) The method as defined in claim 44, including a fuel controller to at least partially expel fuel from said aircraft after said navigational controller controls at least one of said navigational controls.

IX. EVIDENCE APPENDIX

The evidence of record in this appeal is U.S. Patent Nos. 3,945,593 and 4,924,401. These patent references were cited by the examiner during the prosecution of the patent application.

X. RELATED PROCEEDINGS APPENDIX

There are no related proceedings.

Respectfully submitted,
FAY SHARPE-LLP

By: 

BRIAN E. TURUNG

Reg. No. 35,394

1100 Superior Avenue, 7th Floor

Cleveland, Ohio 44114-2579

Telephone: (216) 861-5582

Facsimile: (216) 241-1666

I hereby certify that this correspondence is being deposited
with the United States Postal Service as first class mail
in an envelope addressed to Commissioner for Patents,
P.O. Box 1450, Alexandria, VA 22313-1450

on 5-16-07

Adeline Machado
(SIGNATURE)